

# Energy Plan Summary of Recommendations

## High Priority Recommendations

### **Recommendation 1: Energy Reduction Goal & Vision**

*The Governor should adopt the following goal and vision for reducing Delaware's energy use:*

*Goal: Halt the growth in Delaware's energy use, and begin to reduce Delaware's energy consumption through energy efficiency, conservation, and distributed renewable energy resources. Achieve energy self-sufficiency and carbon neutrality in Delaware's built environment by 2030.*

*Vision: Sustained actions, starting immediately and pursued consistently over the next 20-30 years to achieve this goal will help create an ecologically viable and economically strong Delaware in which:*

- Residential and commercial buildings are energy and carbon neutral, from their construction through their useful lifespan;*
- Delawareans practice conservation and utilize energy efficient equipment, appliances and techniques as standard practice;*
- Commercial and industrial buildings are as efficient as feasible;*
- Industrial and commercial processes are state of the art in energy efficiency;*
- State government demonstrates leadership in energy conservation and efficiency.*

### **Recommendation 2: Residential Energy Code**

*Delaware's Residential Building Energy Code should be updated to reflect the adoption of the most current edition of the International Energy Conservation Code (IECC). Additionally, the Delaware Energy Office should be given the authority through legislation to administratively require an update of the State Building Energy Code to most current IECC every three years based on current code promulgation cycles. Training needs to be provided to all building code officials upon adoption of each update to the code.*

### **Recommendation 3: Commercial Energy and Ventilation Codes**

*3A: Adopt the most recent edition of ASHRAE Standard 90.1 "Energy Standard for Buildings Except Low-Rise Residential Buildings" as our State energy code.*

*3B: Adopt the most recent edition of ASHRAE Standard 62 – "Ventilation for Acceptable Indoor Air Quality" as our State ventilation code.*

*3C: The Delaware Energy Office should be given the authority through legislation to administratively require an update of the State Commercial Building Energy Code to most current ASHRAE Standard 90.1 every three years based on current code promulgation cycles. Training needs to be provided to all building code officials upon adoption of each update to the code.*

### **Recommendation 5: Expand the Weatherization Assistance Program**

*Significantly increase the budget of the Weatherization Assistance Program to enable the program to provide substantially more weatherization services to low-income owner-occupied and rental households as rapidly as possible.*

**Recommendation 7: State Energy Efficiency Policy**

*The Office of Management and Budget should create and implement a State Energy Efficiency Policy which would establish a standard for the design, construction, renovation, and operation of all State funded facilities, including schools, to optimize energy efficiency and minimize overall energy consumption.*

**Recommendation 8: Public Buildings and Facilities Renewable Energy Policy**

*The Office of Management and Budget should develop and implement a policy that sets standards and requires cost effective renewable energy systems to be incorporated in new construction and renovations of public facilities.*

**Recommendation 10: Combined Heat and Power**

*10A. DNREC should develop Combined Heat and Power regulations for boilers/power plants on an energy output basis.*

**Recommendation 11: Energy Education and Outreach Program**

*The Sustainable Energy Utility, in coordination with the Energy Office, should develop and implement a comprehensive education program to inform Delawareans on energy efficiency that includes:*

**Greenhouse Gas Information**

- *Informing citizens about public policies (such as the Renewable Energy Portfolio Standards and Regional Greenhouse Gas Initiative) and the incentives available from the State, the Sustainable Energy Utility and the Federal government.*
- *Educating citizens about the importance and benefits of reducing the state's greenhouse gas emissions--including the economic benefits, new jobs and improved public health, and the potential costs of not doing so.*
- *Educating citizens on how to determine their personal GHG footprint and actions they can take to reduce it.*
- *Information about the scope and potential of distributed renewable energy in the State.*

**Energy Efficiency Information**

- *Energy efficiency steps targeted to different sectors of the economy that would include information that these groups could use to increase their energy efficiency, including easily achievable, cost effective actions;*
- *Behavioral aspects of maximizing energy efficiency and conservation;*
- *Information about the Sustainable Energy Utility as a comprehensive source of support for efficiency, conservation and renewable;*
- *Information on additional programs available from other sources, such as tax credits, deduction or rebates;*

**Program Evaluation**

- *Criteria by which the educational plan is evaluated objectively on a regular basis.*

**Recommendation 12: Distributed Renewable Energy**

*The SEU should defray the cost of installing customer-sited renewable energy as a mechanism to reduce electric transmission and distribution energy losses, dependence on the electricity grid, peak electric demand, and Delaware's carbon footprint.*

**Recommendation 18: Employer Trip Reduction Programs**

*The Governor, through the Secretaries of Natural Resources & Environmental Control and Transportation should convene a committee, including representatives of Delaware employers such as the State Chamber of Commerce, to develop standards and incentives for employer participation in commute alternatives programs.*

**Recommendation WG 19 Bus Transportation System Improvement**

*19A. Where possible, DART and other bus service systems should combine services in overlapping areas.*

**Recommendation 20: Non-ADA Para transit Service**

*The Governor, through the Secretaries of Transportation and Health and Social Services, should convene an ad hoc panel to evaluate and recommend options to improve energy-efficiency and cost-effective implementation of the State's policies regarding non-ADA Para transit service.*

**Recommendation 23: Bicycle and Pedestrian Transportation**

*23A. DelDOT and other state agencies and cooperators should encourage bicycling and walking as alternative transportation.*

**Recommendation 24: Vehicle Fees &/or Fuel Taxes**

*The Delaware Department of Transportation should develop and propose vehicle-related fees and/or fuel taxes which encourage increased fuel efficiency and decrease miles travelled.*

**Recommendation 25: Alternative Fuel/Fuel Efficient Vehicles**

*25A. The Office of Management and Budget should establish high standards<sup>1</sup> for fuel efficiency and environmental impacts for new fleet purchases by the State.*

**Recommendation 27: Smart Growth**

*The Governor, through the Office of State Planning, should strengthen Delaware's efforts to effectively direct growth into growth zones and require Smart Growth.*

**Recommendation 28: Transit-Oriented Development**

*The Office of State Planning should work with local governments to promote Transit-Oriented Development as an innovative strategy and design tool to create livable healthy communities that are integrated with public transit, linked to a network of walkable, bikeable streets.*

**Recommendation 29: Emissions Standards for Development**

*The Department of Natural Resources and Environmental Control, Air Quality Management Section should establish an "Emissions Standard and Mitigation Regulation" for land use development.*

**Recommendation 30: Climate Change Commission**

*The Governor should establish a greenhouse gas reduction goal and a Climate Change Commission to develop a detailed Climate Change Action Plan for Delaware, including a trajectory for the reduction in greenhouse gas emissions and an adaptation plan, incorporating periodic review and evaluation of the plan.*

**Recommendation 31: Green Energy Program**

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<sup>1</sup> One such high standard that Delaware could adopt would be the California Low Emission Vehicle II standard.

*The Green Energy Program should be examined and aligned to complement other state and federal programs, including the Sustainable Energy Utility and federal tax credits, to help achieve Delaware's renewable energy goals and solar carve-out.*

**Recommendation 32: Net Metering**

*Legislation should eliminate forfeiture provisions from the Net Metering Law*

**Recommendation 33: Solar/Renewable Energy Access**

*Solar and renewable energy rights should be available to the citizens of Delaware. Barriers, and methods to relieve those barriers, need to be identified and examined and addressed. The Governor and Legislature should enact legislation addressing deed restrictions and/or covenants that unduly prohibit the use of renewable energy sources.*

**Recommendation 35: Biomass Energy**

*35A. The Energy Office should update the "Delaware Biomass Supply Assessment", including current and potential biomass feed stocks and by-products from all agricultural & forestry activities in the urban and rural communities of the state.*

*35B. Delaware Senate Bill 280, enacted during the 140<sup>th</sup> General Assembly, should be amended by the legislature to eliminate unconstructive impacts on Delaware's biomass utilization and economic growth both in the urban and agricultural communities.*

**Recommendation 36: Clean Coal**

*Delaware, through the appropriate state agencies, should promote deployment of carbon emission reduction technologies at existing coal plants in Delaware and should consider incentive for viable and effective technologies.*

**Recommendation 37: Clean Energy Business Development Initiative**

*The Delaware Economic Development Office should develop and implement a comprehensive Clean Energy Business Development Initiative.*

**Recommendation 38: Comprehensive Energy Workforce Training Strategy**

*The Governor, through the appropriate agencies, should develop and implement a comprehensive energy workforce training strategy. The strategy should include all aspects of the energy workforce, including programs in the vocational/technical schools, Delaware Technical and Community College, the University of Delaware and Delaware State University.*

**Recommendation 39: Wind - Business Development**

*The Delaware Economic Development Office should be funded and tasked with the development of a favorable climate in Delaware for new primary wind industry and ancillary support businesses for the wind industry whether located in Delaware or elsewhere.*

**Recommendation 47. Permitting, Siting & Right-of-Way Coordination**

*The Governor, through the Executive Office of Energy Policy or other agency as determined by the Governor, should convene a stakeholder group to discuss and ascertain the best means of increasing coordination between all stakeholders to simplify the permitting, siting and right-of-way acquisition process for electric and natural gas transmission and distribution projects.*

**Recommendation 48. Natural Gas Expansion**

*The State, through the Public Service Commission and the Energy Office, should consider policy and/or legislative changes to facilitate the expansion of the natural gas transmission and distribution systems, where economically feasible and without being unduly burdensome on existing ratepayers, for the purpose of increasing the availability of natural gas for its residents, industrial and commercial consumers, electricity generating facilities, and other businesses, especially those located in areas of the state where natural gas is not available.*

**Recommendation 49: Energy Planning Governance**

*Energy Policy should be elevated to the Governor's office by creating a Governor's Executive Office for Energy Policy that would provide for coordinated development and implementation of Delaware Energy Policy, including a review and evaluation of the governance structure regarding energy issues among executive bodies including but not limited to: Department of Natural Resources and Environmental Control, State Energy Office, Public Service Commission, Public Advocate, Governor's Energy Advisory Council and Governor's Office.*

## **Second Tier Recommendations**

**Recommendation 4: Enhanced Energy Efficient Construction of New Homes**

*The State should supplement the Federal tax credit by extending a homebuilder a tax credit for building a home that uses 50% less energy than the most recent IECC code.*

**Recommendation 9: Demonstration Project – Schools**

*Conduct a demonstration project, under the direction of the Department of Education, in which a school is designed, built and operated to LEED silver or gold standards.*

**Recommendation 10: Combined Heat and Power**

*10B. DNREC should study, and if appropriate, develop a set-aside of allowance allocations for energy efficiency and renewable energy in Delaware's NOx and CO2 trading programs.*

**Recommendation 13: Retrofitting of Existing Homes for Energy Efficiency**

*The SEU should defray energy efficiency investments of existing homes, both rental units and owner-occupied.*

**Recommendation 14: Energy Efficiency Financing of New and Existing Homes**

*The Energy Office should explore, in coordination with the SEU, new energy efficiency financing models of new and existing homes.*

**Recommendation 15: Enhanced Energy Efficient Construction of New Homes**

*The SEU should defray the incremental investments required for meeting the EPA Energy Star Program requirements.*

**Recommendation 16: Alternative Fuel/Fuel Efficient Vehicles**

*16A. The SEU should provide economic incentives to encourage public and private fleet owners to purchase fleet vehicles that meet the State standards (to be developed under Recommendation ).*  
*16B. The SEU should provide economic incentives for home infrastructure options to encourage greater use of alternative fuel vehicles such as electric, compressed natural gas and Vehicle-to-Grid.*

**Recommendation 17: Vehicle Miles Travelled Reduction Goal**

*The Governor should adopt a goal that by 2030, the total vehicle miles travelled in Delaware will not exceed the levels in 2009.*

**Recommendation 19: Bus Transportation System Improvement**

*19B. Add additional small bus/van routes to connect to longer distance, express oriented transit routes.*

**Recommendation 21: Transit Investment**

*DelDOT should raise fixed-route transit capital spending to at least 20% of total transportation spending in the region and create a dedicated funding stream for the system.*

**Recommendation 22: Bus Rapid Transit Feasibility**

*The Delaware Department of Transportation should explore the feasibility of creating a phased bus rapid transit system throughout the Mid-Atlantic Area (Delaware, Maryland, Pennsylvania, New Jersey).*

**Recommendation 23: Bicycle and Pedestrian Transportation**

*23B. The Governor or the Legislature should implement a “Complete Streets” requirement statewide by statute or Executive Order.*

*23C. DelDOT and other appropriate agencies should increase funding for pedestrian and bicycle transportation.*

**Recommendation 25: Alternative Fuel/Fuel Efficient Vehicles**

*25B. As new alternative fuel vehicle technologies become commercialized, the State Energy Office should conduct studies of options for making the support infrastructure available and convenient to the public in an economically feasible and environmentally safe manner.*

**Recommendation 26: HOV (High Occupancy Vehicle) Lanes**

*As new roadways or expansions are planned, DelDOT should evaluate and incorporate HOV lanes into those plans as appropriate.*

**Recommendation 34: Renewable Energy Portfolio Standards**

*The Governor should examine and, if necessary, propose revisions to the Renewable Energy Portfolio Standard (RPS) to achieve Delaware’s renewable energy goals and to determine whether or not to increase the RPS requirement to be greater than the current specification of 20% by 2019.*

**Recommendation 40: Clean Energy Research**

*The Governor, through the appropriate state agencies, should facilitate public and private sector funding for clean energy research at Delaware’s universities*

**Recommendation 41: Vehicle to Grid Development**

*The Governor, through his policy office, should convene an advisory group to determine the infrastructure, incentives and rules needed to facilitate Vehicle-to-Grid (V2G) development and implementation.*

**Recommendation 42: Biofuels - Expanded Research**

*The Delaware Economic Development Office should work in close alignment with Delaware-based companies and universities to encourage expanded research and business leadership in the State, including the attraction of partners.*

**Recommendation 43: Energy Storage**

*The Governor, through the appropriate state agencies, should establish a support effort for research and development, incentives for suppliers to locate in Delaware, and efforts to raise awareness of energy storage technologies and opportunities.*

**Recommendation 44: Vehicle-to-Grid large fleet demonstration project**

*The Governor, through the appropriate agency(ies), should conduct a pilot project using state government or other large fleets to evaluate the economics and technical feasibility of business models for vehicle to grid.*

## **Third Tier Recommendations**

**Recommendation 6: Geothermal in New Home Construction**

*Delaware, through regulatory adoption or state legislation, should require a percentage, the specific amount to be determined, of all new homes constructed in Delaware to utilize ground water source heat pumps as their primary HVAC source, where spatially and geological feasible. The State Energy Office should conduct the necessary research to determine the appropriate percentage and should increase its marketing efforts for geothermal heat pump systems in the existing home market.*

**Recommendation 45: Hydrogen/Fuel Cells –high visibility, high impact project**

*DelDOT should create a public/private partnership to fund a fast fill hydrogen station at the I-95 rest area.*

**Recommendation 46: Hydrogen/Fuel Cells - State fuel cell vehicle fleet pilot project**

*The Office of Management and Budget, in cooperation with the Energy Office and the University of Delaware, should establish a pilot project to help to create a functioning system of fuel pumps and vehicles located near where the research is being conducted.*

**For more background information, follow link to workgroup reports:**

<http://www.dnrec.delaware.gov/Admin/Pages/DelawareEnergyPlan.aspx>

**To provide comments on these recommendations, send an email to:**

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